IN THE CLAIMS:

- 1. (Previously Presented) A method for compensating for subject-specific variability in an apparatus intended for non-invasively determining an amount of at least two light-absorbing substances in the blood of a subject and provided with emitter means for emitting radiation at a minimum of two different wavelengths and with detector means for receiving the radiation emitted, the method comprising the steps of
 - calibrating the apparatus using a nominal calibration,
- carrying out initial characterization measurements, said measurements to include measuring radiation emitted by said emitter means and received by the detector means without transmission through tissue,
- based on the characterization measurements, establishing nominal characteristics describing conditions under which the nominal calibration is used,
 - storing reference data indicating the nominal characteristics established,
- performing in-vivo measurements on living tissue, wherein radiation emitted by the emitter means through the living tissue and received by the detector means is measured,
- based on the in-vivo measurements and the reference data stored, determining tissueinduced changes in the nominal characteristics, and
- compensating for subject-specific variation in the in-vivo measurements by correcting the nominal calibration on the basis of the tissue-induced changes.
- A method according to claim 1, including compensation for effects causing 2. (Original) wavelength shift.
- A method according to claim 1, including compensation for effects internal to 3. (Original) Please Ewtender Plans Ewtender Plans Ewtender Word ord Mary 1/22/04 the tissue.